



# **Asset System Design Based on Accrual to Improvement Quality of Financial Information (A Case Study in the City of Pacitan)**

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## **ABSTRACT**

Accrual-based accounting is implemented in Government Accounting standards now (Government Regulation No. 71 of 2010). In Regulation 71 of 2010 depreciation shall be conducted on all goods belonging to the State/Region. Therefore, asset systems are adequate to accommodate the asset depreciation. In addition, asset system is necessary because asset management of the State/Regional is not optimal according to the Financial Oversight Bodies (BPK).

This research aims to create a prototype system of asset system in local government with a case study on the Government Pacitan. This research is able to provide a solution to the problem of assets with an adequate information system.

**Keywords:** Prototype system, Asset System, Government accounting standards.

## **1. Introduction**

Government Regulation No. 71 Year 2010 PP PP 71 Year 2010 replacing the Government Regulation No. 24 of 2005 based CTA (Cash toward accrual) is accounting standards that contained accrual-based accounting. One of the differences is depreciation of fixed assets. In PP 71 of 2010, depreciation shall be conducted on all goods belonging to the State/Region, so that the needed systems should accommodate depreciation for fixed assets. In addition, asset system is necessary because property management of the State/Regional not optimal. This can be seen from the many findings of the Supreme Audit Agency (BPK) in the financial statements of Local Government. BPK examine LKPD of province during the first half of 2012 shows problems in the procurement of goods and services in the form of shortage of the volume of work and/or goods as many as 61 cases worth Rp21,44 billion. From the above description, to minimize the findings and implement the mandate of PP 71 in 2010, required the asset system (manual and application). The general objective of this study is produced a prototype of Assets system (manual and software applications) for Local Government.

## **2. Literature Review**

### **2.1. System of Aset Accounting**

Asset accounting system includes several elements that must be met in order to create a good system, these elements include (Mulyadi, 2008):

#### **i. Document**

Documents used as evidence of the transactions relating to changes the cost of fixed assets and

accumulated depreciation of fixed assets. the documents used are investment authorization request letter, letter request reparations, fixed asset transfer request letter, letter request termination of fixed assets, work order, purchase order letter, report the receipt of goods, invoice from the supplier, Evidence cash out, and Evidence memorial.

## **ii. Accounting Record**

Accounting records are used to record the transactions to changes in the cost and accumulated depreciation of assets includes Cards of fixed assets, general journal, and register proof cash out.

## **iii. Related Functions**

Related functions related to changes in the cost of fixed assets and accumulated depreciation of fixed assets include: users, research and development functions, the director, and chief executive officer.

## **iv. Network Subsystem**

Network subsystem is needed in establishing asset accounting system include: System asset purchase of assets, fixed assets acquisition system through its own development, capital expenditures Systems, System discontinuation of fixed assets, fixed assets transfer system, System revaluation of fixed assets and depreciation of fixed assets accounting system .

## **2.2. Government Regulation No. 27 Year 2014 on the Management of State / Regional**

### **i. State/Region Property**

Regulation No. 27 of 2004 explains that "State Property was all goods purchased or obtained at the expense of the State Budget or derived from legitimate acquisition", while the "Regional Property is all goods purchased or obtained at the expense of Revenues and Expenditure or derived from legitimate acquisition.

Management of State / Region property according to Regulation No. 27 Year 2014 include: Requirements Planning and budgeting, procurement, use, utilization, security and maintenance, assessment, Transfer, Destruction, Removal, Administration, and coaching, supervision and control.

### **ii. Process Acquisition and Use of State Property / Region**

Process Acquisition and Use of State Property / Region include:

#### **a. Requirements Planning and Budgeting**

Planning Needs of State/Region Property considering the needs of the duties and functions of the Ministry/Agency/work unit area as well as the availability of State/Region Property exist.

#### **b. Procurement**

Procurement of State/Region Property implemented based on the principle of efficient, effective, transparent and open, competitive, fair, and accountable.

#### **c. Use**

Usage Status of State Property / Regions defined as (1) Property Manager, for State Property; or (2) the Governor / Regent / Mayor, for the Regional Property.

#### **d. Utilization**

Utilization regulates the use, utilization forms, rent, lease, joint use, Build or Build To Deliver Deliver To, Cooperation Provision of Infrastructure, and tender.

#### **e. Security and maintenance**

Property Manager, User of Goods and/or Authorization of Use Goods shall conduct safety and maintenance of State/Region Property that are in their control.

## **f. Assessment**

Assessment of State Property / Region made in preparing the balance sheet of the Central Government / Local, Utilization, or Transfer refers to the SAP (Government Accounting Standards), except in the case of: (1) The use in the form of borrowed; or (2) transfer in the form of grants.

## **g. Transfer**

Property of State/Regions that are not necessary for the implementation of government duties countries / regions can be transferred by means of:

- 1) sale;
- 2) exchange;
- 3) grant; atau
- 4) investement by The Central Government/Regions

## **h. Removal**

Removal of Property State/region done in terms of: (1) the State Property/Region cannot be used and/or not transferable; or (2) there are other reasons in accordance with the provisions of the legislation.

## **i. Administration**

Administration include: accounting, inventory and reporting.

## **2.3. Perancangan dan Pengembangan Sistem**

Design of information systems can not be done without the stages clear and measurable. In the process of development of information systems, the approach that is often used is the System Development Life Cycle (SDLC), where there are four steps as follows (Romney: 2012):

1. Conceptual system design, in this stage the system developers create a common framework for the implementation of user needs and problems solving identified in the analysis process.
2. Physical Systems Design, which changed the design stage of conceptual design into product / design that can be directly implemented.
3. Implementation and conversion, the implementation phase used to find the shortcomings and weaknesses developed system .
4. Operation and maintenance, the last stage in the design and development of systems.

Approach to the development of other systems is prototyping, which is an approach to system development by using a model that is used as a prototype (Romney, 2012). Steps in developing prototyping are (Romney: 2012):

1. Specify basic needs, knowing the needs of users and the scope of the system which includes input, process and output.
2. Develop an initial prototype, in this stage protitipe developers build systems to be delivered to the user in order to get feedback from the user.
3. Modify the prototype with additional requirements based on feedback from the previous stages, developers make improvements and ask for feedback from users on the improvements made.
4. Develop initial prototype into a fully functional system, the development of prototypes to be a system that will be used.

## **2.4. Prototyping**

Prototyping is a technique for building information systems quickly using rapid application development tool that has several advantages such as (Bentley & Whitten, 2007):

1. Encourage and require the active participation of end-users
2. Iteration and change is a consequence of the development of the system (including change of thinking the end-user)
3. End-users do not know all the system before implemented
4. Prototype is an active models so that end-users can view, hold, feel, and experience with the system.
5. The prototype that has been approved, paper design equivalent with job specification with one exception (error can be detected quickly)
6. Prototyping can enhance creativity because of the rapid feedback from users can quickly deliver the right solution.

7. Prototyping can accelerate some of the phases in the life cycle, in this case prototyping can combine several phases which are usually to be served one at a time.

In using prototyping as a technique to build the system, some things will be done:

1. Output design

The output is an important component in information systems, where the output can be classified into two characteristics: (1) the distribution and the user, and (2) methods of implementation (Bentley & Whitten, 2007). Output design goal is to determine the nature, format, content, and timing of reporting, documents, and screen display (Romney & Steinbart, 2012).

2. File and database design

Data from several units must be stored in a format that is compatible to help avoid problems, systems and incompatible formats, and the inability to communicate and share data to another unit (Romney & Steinbart, 2012). Preparing for the data base that in accordance with the needs and development (Bentley & Whitten, 2007).

3. Input design

Input consists of two characteristics: (1) how the data is captured, entered, and processed and (2) methods and technologies used to capture the data and enter data (Bentley & Whitten, 2007).

4. Program design

Design includes step-step program: (1) determine the needs of users, (2) create and document the development plan, (3) make instruction program (computer code), (4) the trial program, (5) documenting programs, (6) user training programs, (7) to install the program, and (8) use and modify the program.

5. Procedures and control design

The procedure includes the preparation of input, processing transactions, pendeteksian and error correction (error), pengendalian, balance reconciliation, database access, preparation and distribution of output, and the instructions for the computer operator. Control (control) should be made to ensure the effectiveness, keefesienan, and kekakuratan thus avoiding the occurrence of "garbage in, garbage out".

### **3. Research Method**

The ideal research method is a method that accordance with the demands or requests of the research problems that will be studied or will be answered. The research method must be able to prove the accuracy, validity, and is the best method of various alternatives.

Research methods from the point of data collection can be grouped into a method of observation, case studies, and survey methods. In the method of observation, researchers conducted observations of the object under study either directly, participate, or through video. In the case study, the researchers set the unit of analysis that be the focus of research in depth with various backgrounds to discuss issues surrounded. While the survey method, the researchers conducted a question and answer (in person, by mail or telephone) or using a list of questions to take samples.

In this study, the researchers chose to use the method of case study research. This method classified as qualitative and it can be called field research, although not all studies should be with field case study. This method is appropriate if the theory to be discussed are not being evolve and the literature is not much, we wanted to examine in more depth on the case, and not enough time and funds to expand research (Harahap, 1999). Case studies are expected to cover the whole (holistic) that touches many different variables that exist within an organization that has a wide range of complexity.

A case study presents of organizational phenomena in detail, trying to interpret, and explain a topic of organizational aspects. Case studies generate the appropriate theoretical framework and try to offer or revise understanding of the issue.

System development approach that used in this research is systems development life cycle (SDLC). SDLC is the concept where each project will have a system development life cycle process or essentially the same, namely planning, analysis, design, selection, implementation, and operation (Wilkinson, 2000) where the procedures and steps is carried out iteratively and continuously.

Literature study is the beginning of the research activity. Literature study aims to explore the basics of the theory of literature books, articles, journals, scientific journals, government regulations, the interior minister's decision, and the regulation of regional heads.

Data collection was conducted by researchers using some method including of direct interviews with the leaders of work units (SKPD) and staff associated with asset management and observation on the part of asset administration. The data required in this research include: organizational structure (organizational structure and work), Regulation of Local Government Mayor Asset Policy and Local

Government Asset System current and required reports (information needs) by stakeholders in the local government as a basis for decision decision.

Data analysis method used is qualitative method that using qualitative data in the form of information or data. In interviews with The Chief SKPD and staff, will be obtained data on the information needs of each party. By observation, researchers can see the business process and the job description. Based on the information and findings in the field, as well as referring to Regulation No. 64 In 2013, researchers were able to design a system that is applicable to the Assets Local government.

## **4. Discussion**

### **4.1. Asset System in Pacitan**

Currently, the Government of Pacitan has a asset system that used in managing fixed assets and supplies. The system used to manage the assets is Regional Property Management System, while the system used to manage supplies is Supplies Management System . Both of these systems is the second version which was built in 2011 using the PHP programming language with web base but can not be used online.

Both systems are used by the Government of Pacitan is a self-developed system. The system has been used since 2011, this system accommodates all processes in the management of fixed assets and consumables from planning to the removal of fixed assets and expenditure on consumables.

Menus process in the property management systems, among others: RKBU Entry, Entry RKPBU, Goods Receipt Entry, Entry Maintenance, Entry Proposed Removal of Goods and deletion entry of goods. While reports that can be generated from this system include: SKPDs report monthly, District Reports, Modification SKPDs Reports Monthly, and Modification District Reports.

The menus for Management System Supplies include process: entry RKBU, Goods Receipt Entry and Entry expenditures. As for reports that can be generated in this system is SKPDs Monthly report, Report of the District, and Request for BPK.

### **4.2. Analysis of Asset System in Pacitan**

Under the system of assets owned by the Government of Pacitan and discussion on the management of government assets in Pacitan, can be obtained several things that must be addressed another anatra:

1. The system can not be used online, so that data and information can not be viewed in real time but waiting until the reporting period (6 months) and must collecting all the data from SKPD.
2. The data and information generated by the asset system linked with regional financial system, so that the process of preparation of financial statements with manual input the assets data into the financial system.
3. Provision of assets code account between financial system and assets system are different can lead to difficulties in identification and searches of assets when prepare financial statements and synchronize the data.
4. The local financial system does not record continuously assets and assets not recorded online can make data and information of assets become less accurate, this is because of recording errors in assets generated by the financial system.

### **4.3. Design of Asset System in Pacitan**

Based on the analysis of the existing system assets in Pacitan, the steps in the design of new assets:

#### **1. Output design of asset system**

Output design for asset system in Pacitan Pacitan follow the decree No. 44 of 2013 and Government Regulation No. 27 of 2014. The output of the system's assets include: goods inventory card, card inventory space, RKBU reports, and reports RKPBU.

#### **2. Input design of asset system**

Data input of assets system such as the type of goods that contains the specification of the goods, the location where the goods will be placed, depreciation method, account-related accounts, unit Goods Needs Plan (RKBU), and Planned Maintenance Requirements Goods Unit (RKPBU).

#### **3. Develop a software program design**

Software program design of assets system in Pacitan looks like in figure 1.

#### **4. Develop procedures and controls**

Procedures in asset system pacitan starts from the procedure to entry the application, transaction procedures, and reporting procedures. All procedures referring to Government Regulation No. 27 Year

2014 on the Management of State / Regional and Regent Pacitan Regulation No. 44 Year 2013 on Amendment to the decree No. 30 of 2012 on Technical Guidelines for Regional Property Management.

### 5. Conclusion

Based on the review of the existing assets system in Pacitan and assets system design, can be concluded:

1. The system can not be used online, so that data and information can not be viewed in real time.
2. The data and information generated by the asset system is not connected to the financial system so that the process of preparation of financial statements need to manually input the assets data into the financial system.
3. Provision of assets code account between assets system and financial system are different.
4. The financial system does not record continuously assets and assets not recorded online can make data and information assets become less accurate.
5. The designed assets system already using the online system and can be linked regional financial systems so the data and information presented in real time.

LOGIN	SETUP		INVENTARIS		TRANSAKSI BAS		LAPORAN				
	1	SKPD	DATA KIB		8	SALDO AWAL	DATA KIB		BAS	UTAMA	
	2	JENIS BARANG	5	KIB A	8	JURNAL KAS	5	KIB A		8	KONSOLIDASI NR
	4	LOKASI	5	KIB B	8	JURNAL UMUM	5	KIB B		8	KONSOLIDASI LRA
			5	KIB C			5	KIB C		8	KONSOLIDASI LO
	3	METODE DEPRESIASI	5	KIB D	5 8	AKTIVA TETAP	5	KIB D		8	GABUNGAN
	2	KATEGORI DEPRESIASI	5	KIB E			5	KIB E		UMUM	
			5	KIB F	8	POSTING	5	KIB F		8	BUKU BESAR
	8	BAGAN AKUN STANDAR	5	KIR RUANG			5	KIR RUANG		8	BUKU KAS
	8	SUMBER DANA	5 8	PROSES DEPRESIASI			5	INVENTARIS		8	TRANSAKSI
		DATA RKB				DATA RKB					
		6	USULAN RKB			6	USULAN RKB				
		6	PENERIMAAN			6	PENERIMAAN				
		6	PENGHAPUSAN			6	PENGHAPUSAN				
		DATA RKPBU				DATA RKPBU					
		7	ENTRY RKB			7	ENTRY RKB				
		7	ENTRY PEMELIHARAAN			7	ENTRY PEMELIHARAAN				

Figure-1. Design of Asset System in Pacitan

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